Research-Based Approach for Target Vocabulary Instruction: A Seven-Step Routine

by Ellen Kappus

As an instructional facilitator in a school district committed to Structured Literacy reading instruction, I am well versed in the latest ELA curricula aligned with the science of reading. I am also a researcher who has participated in research projects testing multifaceted vocabulary instruction at the kindergarten level (Manyak & Kappus, under review), and in second-grade dual-immersion classrooms in which teachers provide both native English speakers and English learners with general academic instruction in English and Spanish (Manyak & Kappus, 2021). From my vantage point as both instructional facilitator and researcher, I have carefully examined the vocabulary instruction in ELA programs that my school district has considered for adoption. Like previous researchers, I found that the vocabulary lessons in these programs do not reflect guidelines resulting from vocabulary instruction research (Neuman & Dwyer, 2009; Wright & Neuman, 2013). Given the lack of guidance in core ELA materials, it is not surprising that several studies have found a lack of systematic vocabulary instruction in classrooms (Carlisle, Kelcey, & Berebitsky, 2013; Wright, 2012).

In light of the impact of vocabulary instruction on young readers' acquisition of word meanings and reading comprehension skills (Elleman et al, 2009; Manyak & Manyak, 2021), it is imperative that teachers are prepared to teach vocabulary effectively. As current ELA curricula are lacking in research-based approaches for the instruction of target words, my goal in this article is to help teachers learn the science behind and practice of quality target word instruction. In the next sections, I provide a brief summary of the components of comprehensive research-based vocabulary instruction and present outcomes from the Vocabulary and Language Enhancement (VALE) research studies that are the basis of this paper's practical recommendations. I then describe and illustrate the VALE approach for target word instruction in detail.

Effective Vocabulary Instruction: Quality, Quantity, Strategy

Vocabulary researchers have identified key elements which have been effective in increasing children's vocabulary knowledge (Graves, 2016; Silverman & Hartranft, 2015). In developing the VALE framework for vocabulary instruction used in his research studies, Manyak conceived

these elements to be the *quality*, *quantity*, and *strategy* dimensions of vocabulary instruction (Manyak & Manyak, 2021; Manyak et al., 2021).

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The *quality* component involves intensive instruction of 6-12 high-value words a week using an efficient, but rich word introduction routine and a variety of quick review activities loosely based on the Text Talk approach (Beck et al., 2013). For example, in VALE-K we created PowerPoint lessons for kindergarten teachers that guided them through the following 10-12 minutes of instruction: (a) saying the word chorally several ways (e.g. fast, slow, loud); (b) clapping the syllables; (c) the teacher providing a student-friendly definition; (d) the teacher using the word in sentences; (e) the teacher

leading students in sentences describing how an image represented the word meaning; (f) a verbal quiz in which students heard a phrase linked to a visual and were asked if it was either an example or non-example of the target word; and (g) using the word in a sentence guided by a sentence frame. To support target word review, I made small target word image cards to use in playing bingo. Students were given definitions and turned over the appropriate image cards until they had three in a row.

The quantity component consists of brief, but intentional teaching of a collection of content-specific words presented through thematic read alouds; they receive less attention than the target words but are explicitly taught and reviewed on a poster with visuals that support students' understanding of the words. This instruction, based directly on Blachowicz and Obrochta's (2005) Vocabulary Visit routine, involves (a) selecting several informational texts that focus on a unit topic; (b) selecting a set of approximately 16 core vocabulary words related to the topic (e.g., recycle, waste, landfill); (c) discussing a poster featuring related images with students; (d) attaching the key words to the poster; (e) reading each text aloud to students at least two times; (f) discussing the core vocabulary words in context; and (g) returning to the poster after each read-aloud to review the key topic words and add additional words that students recalled from the read aloud.

The strategy component includes instruction in morphological analysis that equips young students to be independent word learners. In second grade, Manyak supplied teachers with interactive PowerPoint lessons and interactive Jeopardy-style word games to assist in teaching and practicing compound words and 11 of the highest-frequency prefixes and suffixes. In kindergarten, teachers taught five morphological analysis PowerPoint lessons, four involving compound words and one focused on the prefix un. The lessons were brief, involving approximately 10-12 minutes of instruction. Following these explicit lessons, we encouraged the teachers to call attention to and discuss compound and prefixed words as they appeared during the day.

Results of VALE-DI and VALE-K Studies

Outcomes from two VALE studies, one involving six second-grade dual-immersion classes (VALE-DI) and one involving 13 kindergarten classes (VALE-K), demonstrate the highly effective nature of long-term, multifaceted vocabulary instruction guided by the VALE framework. In each study, students made accelerated

growth on standardized measures of generalized vocabulary, an uncommon outcome in vocabulary research (Wright & Cervetti, 2017).

In the last year of VALE-DI, the students grew from 43 to 53 in Normal Curve Equivalents (indicating accelerated growth in comparison to the norming sample) on the Gates-MacGinitie Vocabulary Subtest (GMVS, 2000), a standardized vocabulary test frequently used in research. Further, this group showed highly accelerated growth in general English vocabulary, as measured by the GMVS, in comparison to the students in the project teachers' prior year. Finally, although the emergent bilinguals scored below their native English speaking peers on the fall and spring administration of GMVS, after participating in the multifaceted vocabulary instruction, the gap between the two groups narrowed significantly on the endof-year test (Manyak & Kappus, 2021).

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Similar growth was evident in the first year of the VALE-K project. The group of just under 200 participating students made significant growth on the Peabody Picture Vocabulary Test-4 (PPVT; Dunn & Dunn, 2007). The fall mean standard score (98.29) of the entire VALE-K sample was slightly below that of the norming sample, and the VALE-K spring mean score (107.38) was well above that of the norming sample. Analyzed inferentially, results on the paired samples t-test comparing the VALE-K students' pretest and posttest mean standard scores attained statistical significance and had a medium effect size (d = 0.66). Overall, these outcomes suggest clear benefits of long-term, multifaceted vocabulary instruction based on the VALE framework. In order to prepare teachers to take the first step in providing such instruction, the approach to quality-oriented vocabulary instruction used in the VALE projects is described next, with a specific focus on the VALE target word introduction routine.

The Quality Component: VALE Target Word Introduction Routine and Review Activities
Quality-oriented vocabulary instruction involves the teaching of individual word mean-

ings with the goal of producing a deep understanding of these words. Research indicates that this type of instruction should provide multiple encounters with and active processing of target words (Stahl & Fairbanks, 1986). There is a limit to the number of word meanings that can be taught through intensive quality-oriented instruction. However, if target words are chosen carefully, such instruction can equip students with an understanding of high frequency, lesser known terms as well as key words in thematic content.

In the VALE-DI study, Manyak used the Sakiey & Fry (1984) list of 3000 frequent words in texts as a source for the weekly target words. According to Fry (1997), the first 300 words in the list represent approximately 67% of all the words students encounter in their reading. The teachers included 120 words that appeared between words 626 and 1325 on this frequency list, as these were words drawn from Increasing Fluency with High Frequency Word Phrases for Third-Grade (Rasinski & Fry, 2007), a resource teachers used to practice fluency and reinforce vocabulary knowledge. Half of the target words were these high frequency words, and the other half were chosen by teachers as high-value curriculum words; they taught 12 of these words a week for 20 weeks. Examples of typical less-familiar frequent words used in VALE-DI include amount, control, section, and nation.

Similarly, for the VALE-K study, Manyak and I used the Sakiey & Fry list to identify less-familiar frequent words for instruction in kindergarten. These words would appear with some frequency in children's texts and lessons in the later elementary grades but would be unfamiliar to many K-1 students. We analyzed words from Sakiey and Fry's (1984) list of 3000 most frequent words in texts for children in grades 3-9, identifying 185 words we believed would be less familiar but teachable to kindergarten students and would also be of the highest utility (e.g., pattern, order, action, describe, include, increase). At the outset of the school year, the teachers reviewed the list of suggested words that they felt would be difficult to teach.

In developing the VALE target word introduction routine, Manyak wove together the following research-based instructional moves: (a) calling attention to the orthographic features through decoding; (b) clapping syllables and repeating the word (Chambre, Ehri & Ness, 2020); (c) providing a student-friendly definition and examples of word use (Beck et al., 2013); (d) discussing an image of the target word (August, Artzi, Barr, & Francis, 2018; Gruhn,

Segers, Verhoven, 2020); (e) creating questions that link to background knowledge and require students to think deeply about the meanings (Neugebauer et al., 2017); (f) quizzing students with examples and non-examples of use (Beck et al., 2013); and (g) prompting and supporting students in using the word orally or in writing (Silverman & Hartranft, 2015). We provided lessons for the participating teachers that included scripts such as the example in Figure 1.

The VALE-DI teachers taught 10-12 target words a week for 28 weeks and posted them on a vocabulary word wall to support review. Review activities included *Two-in-One*, where students wrote one sentence with two target words; *Connect Two*, where students chose two words and explained how they are connected; and Headbands, where students wore the word on their head and had classmates give clues to help them guess the word. After two months,

Figure 1

Target Word Lesson for the Word "Excess"



- Excess. Everybody say excess. Now say it in a whisper. Now in a loud voice. Now slowly. Now fast! Now, let's separate it (clap or chop) into syllables: ex/cess. How many syllables? What is the first sound?
- 2. Excess means there is too much of something. When you use an excess of glue on your art work, it doesn't dry and can stick to other things. Eating an excess of candy makes it hard to sit still.
- 3. Examples:
 - I had an excess of food for dinner and got a stomach ache
 - I packed an excess of books in my backpack, and now it is too heavy to move.
 - I used an excess of black crayon on my drawing, so it is too dark
- 4. Look at the picture. How does it show excess?
- Either/Or (show slides with images for each example on Smartboard):
 - I am going to say some sentences. If it is an example of excess, then say excess. If it is not an example of excess. be silent:
 - A cup of water that is so full, water spills down the sides (students say excess).
 - An empty nest (students say nothing).
 - Five sheets of paper towels to dry your hands (students say excess).
- 6. Turn to your partner and say the sentence: When I use an excess of _______, I ______.

the target words were removed from the word wall to allow for a new collection of target words. However, the previous words were stored in an envelope labeled *Old Friends*, and the teacher periodically pulled out several of these "old friends" and asked the students to give meanings and use them in sentences. Figure 2 and Figure 3 show two of these review activities.

The VALE-K teachers introduced 6 words a week in two approximately 12-minute blocks across two days. They used the three remaining days of the week for review. The review included having students name the word shown in the image and then asking the students to use the word in a sentence. Another review was the game Flyswatter. Two teams, each represented by one student with a flyswatter, stood in front of the white board which displayed 9-12 word images. When the teacher called out the definition of the word, the students raced to tap the correct image with the flyswatter. The first team to earn 10 points won. Figure 4 shows teacher-created vocabulary word walls that were used for the flyswatter game and as visual aids. Another popular review activity was bingo using the application Bingo Baker. Teachers entered 3 weeks of word images into the app which created individual bingo boards for students on Chromebooks in order to review words by linking the images to their definitions. Students excitedly identified words with the goal of achieving bingo.

In summary, the VALE Target Word Introduction Routine provides teachers with a structure to ensure consistent, robust instruction of target words that can be readily implemented using words identified in their ELA curriculum or chosen by referencing research-based lists. Moreover, consistent review activities ensure that students have multiple opportunities to use the words which will reinforce word meanings.

Figure 2Students Playing Headbands



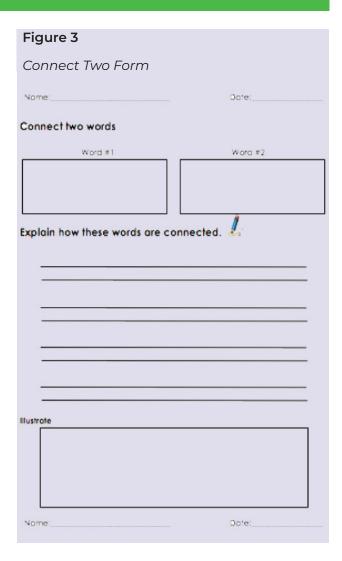


Figure 4

VALE-K Word Wall



Conclusion

It is my hope that district administrators, curriculum designers, and teachers recognize the effectiveness of the VALE Target Word Introduction Routine, facilitate its implementation, and strive to dedicate at least 10-15 minutes a day to this quality dimension of vocabulary instruction. A teacher in VALE-DI used this routine for four years after the end of the project—even when his district adopted a new ELA curriculum. He said, "The new curriculum has taken the place of identifying words to teach, but the instructional practices (the most important part in my opinion) are very much in place, and we are better because of it." Thoughtful consideration and application of this routine by teachers will greatly enhance their students' word learning and thus have positive effects on improving reading outcomes.

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